

## REMARKS

In the Office Action the Examiner noted that the references listed in the earlier submitted Information Disclosure Statement were not provided by the inventor. Procurement of the references cited on the Examiner's PTO-892 form are being procured and will be submitted to the Examiner. Hopefully, these documents will be in the Examiner's possession before this Application is again picked up for examination.

The Examiner suggested that applicant review the specification for idiomatic and grammatical errors. It is intended to provide a new copy of the specification to the Examiner that is not single spaced and provides the claims beginning on a separate page and an abstract beginning on a separate page. In the process, attention will be paid in searching for such errors of form as may become apparent. However, in accordance with 37CFR1.111, it is respectfully requested that submission of the reformatted specification be held in abeyance until allowable subject matter is found in this case. It is respectfully submitted that examination of the Application on its merits will not be affected by such a delay. There is no present intention to substantively change the specification.

Claims 1 – 14 (cited in the Office Action as claims 1 – 17) were rejected under 35USC112, first paragraph, as failing to comply with the written description requirement for a patent application. The Examiner considers that the subject matter of the claims was not described in the specification so as to reasonably convey to one skilled in the art that the inventor at the time of filing the Application had possession of the claimed invention. This position by the Examiner is respectfully traversed.

Claims 1 – 14 were canceled herein without prejudice and replaced with new claims 15 – 32. It is respectfully believed that the new claims clearly represent applicant's invention. The claims are supported in the specification, drawings, and original claims. New matter was not added.

In support of his position, the Examiner especially noted that the applicant is silent regarding how the cryogenic cooling is effected on the circuitry, how circulation of cryogenic liquid is controlled and managed, and difficulties in maintenance of cryogenic temperature level in the motors. The Examiner also noted that superconductive materials needed for the invention are not available, the fuel cell is not available, how the cryo-elements of claims 6, 8, 13 and 14 are made is not explained, etc.

It is respectfully submitted that the fuel cells mentioned in the application are not the present invention; the cryogenically cooled motors are not the invention; the drive unit is not the invention; the superconductive buss is not the invention; the details of construction of the cooling system are not the invention.

The **invention is the novel combination** of these substantially-known elements **into a system** which maximizes efficiency and at the same time eliminates the pollution and environmental threats inherent in present internal combustion engines. The development of all those individual items mentioned immediately above that are not in themselves the present invention will be effected by engineers, thermodynamicists, etc. now working in these fields. Every one of those components has already been developed to a degree (please see the Bibliography) and the undersigned confidently predicts that many thousands of patent applications will be filed in the years ahead as low temperature semiconductors and superconductors are used and combined. Magnetic resonance imaging is an excellent example of a concept, and its use of cryogenics and superconductivity in powerful magnets, which was brought to fruition by the engineering skill and efforts of those who rapidly developed new electronics and new physical hardware after the theoreticians had invented the broad concepts. Their efforts were undertaken, building on their prior knowledge and belief in their engineering capabilities. Details of how the cooling is applied, metered, and controlled are not a novel part of **this** invention, but should present no unsolvable problems to the appropriate engineering communities.

The present disclosure describes how these elements, even though some may still be developmental, are to be combined to provide a new motor drive using superconductors and low temperature semiconductors. This invention is especially effective in fuel cell- driven motor systems where a cold fluid is already available to fuel the fuel cell and may be further applied for cryogenic cooling. MPEP 2164.02 discusses these matters when an invention is described in an application and the invention has not yet been fully reduced to practice. MPEP states, "...a prophetic example describes an embodiment of the invention based on predicted results rather than work actually conducted or results actually achieved." Federal courts have held. "...the mere fact that something has not previously been done clearly is not, in itself, a sufficient basis for rejecting all applications purporting to disclose how to do it." MPEP continues, "...the specification need not contain an example if the invention is otherwise disclosed in such manner that one skilled in the art will be able to practice it without an undue amount of experimentation."

MPEP 2164.03 states the "predictability or lack thereof" in the art refers to the ability of one skilled in the art to extrapolate the disclosed or known results to the claimed invention. There can be no doubt that the present invention as disclosed in the specification, illustrated in the figures, and now presented in new claims 15 -32 can be constructed and predictably will be constructed when the advantages, measured in dollars and environmentally, of the proposed invention outweigh the costs of production and costs to the environment.

Every function of the present invention has already been reduced to practice, although not in the claimed combinations. The present inventor is well aware of the state of art in this field and has been a major contributor (see Bibliography). He knew his invention at the time the application was filed; but, whose claim drafting could not use some improvement?

For these reasons it is respectfully requested that the rejection under 35USC112, first paragraph, be withdrawn.

With regard to the motors, when constructed of superconductive materials and operating cryogenically, the  $I^2R$  losses are substantially eliminated and such a motor will not run hot. Also, it should be understood that "high temperature superconductors" is a term used by those skilled in the cryogenic arts to distinguish high temperature superconductors that operate at, for example liquid nitrogen temperature, 77K, from low temperature superconductors that operate, for example, at liquid helium temperatures, 1-5K. Thus, the high temperature superconductors operate very cold but not as cold as the originally-developed low temperature superconductors. Of course, it is much, much less expensive to operate at 77K than at those temperatures near absolute zero.


Additionally, it is worth noting that when those skilled in the semiconductor arts speak of low temperature semiconductor operation they are generally speaking of liquid nitrogen temperatures in the order of 77K.

The Examiner's rejection of specific claims is rendered moot by replacement of the original claims. In this claim replacement, new matter is not added. All claims are based upon the specification and drawings as originally filed.

An earnest effort has been made to be fully responsive to the Examiner's objections. It is respectfully submitted that the new claims are supported in the specification and represent a novel combination(s) of already known and in-development elements. Allowance of the claims is respectfully requested. However, if the Examiner should deem that the claims are not in condition for allowance, it is respectfully requested that he contact the undersigned at the number listed below.

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Respectfully submitted,

  
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